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| 09/583,251 | 05/31/2000 | Hirofumi Takei | B208-1095 | 2841 |

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EXAMINER

LONG, HEATHER R

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2615

DATE MAILED: 06/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/583,251

Applicant(s)

TAKEI, HIROFUMI

Examiner

Heather R. Long

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8,11-13,15 and 18-20 is/are rejected.
- 7) ☒ Claim(s) 2,3,7,9,10,14,16,17 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 May 2000 and 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 3/14/2005 have been fully considered but they are not/ persuasive.

The Applicant argues on page 14, lines 6-7 that Takei fails to disclose using all of the blocks of the image pickup plane when detecting the maximum or peak brightness level. The Examiner respectfully disagrees. This case is covered when all of the plurality of blocks in the Takei reference is considered to be in the white extracting area.

For a further explanation, Takei discloses in col. 15, lines 50-56 that "the correction signal calculation section (34) selects data having the minimum value, i.e., data which minimizes the white balance correction amount, of color temperature data [Ravr(w), Bavr(w)], [R(Ymax), B(Ymax)], and [Ravr, Bavr], and compares the selected color temperature data with the above-mentioned reference potentials (reference values) Rref and Bref". It is inherent that a comparison would have to be made between [Ravr(w), Bavr(w)], [R(Ymax), B(Ymax)], and [Ravr, Bavr] in order to select the data with the minimum value. Furthermore the predetermined region for the average calculations inherently includes the predetermined region for the peak calculations since Takei uses the whole image sensor as the predetermined region for the average calculations and then uses the blocks from the predetermined region that were considered to be in the white extracting area when determining the peak values. All of the

plurality of blocks divided by the dividing region acquires a peak value when all of the plurality of blocks is considered to be in the white extracting area.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 4, 6, 8, 11, 13, 15, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Takei (U.S. Patent 5,831,672).

Regarding claim 1, Takei discloses a white balance correcting device for correcting white balance of a picked-up image signals, comprising: an image pickup device (1) which picks-up image signals of an image pick-up plane; a dividing part which divides a scope of the image pick up plane into a plurality of blocks (Fig. 8); a peak value acquiring part which acquires a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided by the dividing part; an average value calculating part which calculates an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided by the dividing part (Fig. 8 shows each of the blocks with an average value calculated for it); a comparison part which makes comparison between brightness information of the average value and the peak value; a selection part which selects either of the values obtained by the average value calculating part or the values obtained by the peak value acquiring part according

to comparison result by the comparison part; and a white balance control part which controls white balance on the basis of the values selected by the selection part (col. 10, lines 1-11 and 32-41; col. 14, lines 58-61; col. 15, lines 27-30 and 50-64). Takei discloses in col. 15, lines 50-56 that "the correction signal calculation section (34) selects data having the minimum value, i.e., data which minimizes the white balance correction amount, of color temperature data [Ravr(w), Bavr(w)], [R(Ymax), B(Ymax)], and [Ravr, Bavr], and compares the selected color temperature data with the above-mentioned reference potentials (reference values) Rref and Bref". It is inherent that a comparison would have to be made between [Ravr(w), Bavr(w)], [R(Ymax), B(Ymax)], and [Ravr, Bavr] in order to select the data with the minimum value. Furthermore the predetermined region for the average calculations inherently includes the predetermined region for the peak calculations since Takei uses the whole image sensor as the predetermined region for the average calculations and then uses the blocks from the predetermined region that were considered to be in the white extracting area when determining the peak values. All of the plurality of blocks divided by the dividing region acquires a peak value when all of the plurality of blocks is considered to be in the white extracting area.

Regarding claim 4, Takei discloses all the limitations as previously discussed with respect to claim 1 as well as disclosing in Fig. 9 a white balance correcting device wherein the peak value acquiring part acquires peak values of image signals from signals that have beforehand been subjected to limitation for

setting an upper limit to a signal level of the image signals picked-up by the image pick-up device (col. 10, lines 25-30).

Regarding claim 6, Takei discloses a white balance correcting device for correcting white balance of a picked-up image, comprising: an inputting part which inputs picked-up image signal of an image pick-up plane; a dividing part which divides a scope of the image pick-up plane into a plurality of blocks (Fig. 8); a peak value acquiring part which acquires a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided by the dividing part; an average value calculating part which calculates an average value of brightness and average values of signal values obtained in each of all of the plurality of blocks divided by the dividing part (Fig. 8 shows each of the blocks with an average value calculated for it); a comparison part which makes comparisons between brightness information of the average value and the peak value; a selection part which selects either of the values obtained by the average value calculating part or the values obtained by the peak value acquiring part according to the comparison result by the comparison part; and a white balance control part which controls white balance on the basis of the values selected by the selection part (col. 10, lines 1-11 and 32-41; col. 14, lines 58-61; col. 15, lines 27-30 and 50-64). See explanation for claim 1 and response to arguments for further discussions.

Regarding claims **8** and **11**, these are method claims corresponding to the apparatus claims 1 and 4 respectively. Therefore, claims 8 and 11 are analyzed and rejected as previously discussed with respect to claims 1 and 4.

Regarding claim **13**, this is a method claim corresponding to the apparatus claim 6 respectively. Therefore, claim 13 is analyzed and rejected as previously discussed with respect to claim 6.

Regarding claim **15**, Takei discloses a storage medium which stores therein a program for executing a process for correcting white balance of a picked-up image signals, the process comprising: picking-up image signals of an image pick-up plane; dividing a scope of the image pick up plane into a plurality of blocks (Fig. 8); acquiring a peak value of brightness and color signal values corresponding to the peak value from the image signals obtained in each of all of the plurality of blocks divided in the dividing step; calculating an average value of brightness and average values of color signal values from the image signals obtained in each of all of the plurality of blocks divided in the dividing step (Fig. 8 shows each of the blocks with an average value calculated for it); making comparison between brightness information of the average value and the peak value; selecting either of the values of obtained in the average value calculating step or the values obtained in the peak value acquiring step according to the comparison result; and controlling white balance on a basis of the values selected in the selection step (col. 9, lines 49-54; col. 10, lines 1-11 and 32-41;

col. 14, lines 58-61; col. 15, lines 27-30 and 50-64). See explanation for claim 1 and response to arguments for further discussions.

Regarding claim **18**, Takei discloses all the limitations as previously discussed with respect to claim 15 as well as disclosing a storage medium wherein peak values of the image signals are acquired in the peak value acquiring step from signals that have beforehand been subjected to limitation for setting an upper limit to a signal level of the image signals picked-up in the image picking-up step (col. 10, lines 25-30).

Regarding claim **20**, Takei discloses a storage medium which stores therein a program for executing a process for correcting white balance of a picked-up image signals, the process comprising: inputting a picked-up image signal of an image pick-up plane; dividing a scope of the image pick-up plane into a plurality of blocks (Fig. 8); acquiring a peak value of brightness and color signal values corresponding to the peak value of brightness obtained in each of all of the plurality of blocks divided in the dividing step; calculating an average value of brightness and average values of color signal values obtained in each of all of the plurality of blocks divided in the dividing step (Fig. 8 shows each of the blocks with an average value calculated for it); making a comparison between brightness information of the average value and the peak value; selecting either of the values obtained in the average value calculating step or the values obtained in the peak value acquiring step according to the comparison result in the comparison step; and controlling white balance control part which controls

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white balance on the basis of the values selected by the selection step (col. 10, lines 1-11 and 32-41; col. 14, lines 58-61; col. 15, lines 27-30 and 50-64). See explanation for claim 1 and response to arguments for further discussions.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 5, 12, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei (U.S. Patent 5,831,672).

Regarding claim 5, Takei discloses all the limitations as previously discussed with respect to claim 1. However, Takei differs from claim 5 in that claim 5 further requires a white balance correcting device wherein the peak value acquiring part acquires peak values of video signals from signals that have beforehand been subjected by a low-pass filter to limitation for setting an upper limit to a signal level of an inputted video signal. Official Notice is taken that both the concept and the advantages of using a low-pass filter to set the upper limit of a signal level of an inputted video signal is well known and expected in the art. Therefore, it would have been obvious to use a low-pass filter to set the upper limits of a signal level of an inputted video signal to obtain a certain range of peak values.

Regarding claim **12**, this is a method claim corresponding to the apparatus claim 5 respectively. Therefore, claim 12 is analyzed and rejected as previously discussed with respect to claim 5.

Regarding claim **19**, grounds for rejecting claim 5 apply for claim 19 in its entirety.

Allowable Subject Matter

6. Claims 2-3, 7, 9-10, 14, 16-17, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: prior art fails to teach or suggest a white balance correcting device, in combination with all the other elements claimed, wherein the comparison part computes a comparison between a first integral value obtained by integrating average values obtained by the average value calculating part and a second integral value obtained by integrating peak values obtained in the predetermined region by the peak value acquiring part, and, wherein the selection part selects the values obtained by the peak value acquiring part if the second integral value is not less than a predetermined number of times the first integral value, and the selection part selects the value obtained by the average value calculating part, if the second integral value is less than the predetermined number of times the first value.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather R. Long whose telephone number is 571-272-7368. The examiner can normally be reached on Mon. - Thurs.: 7:00 am - 4:30 pm, and every other Fri.: 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Heather R Long
Examiner
Art Unit 2615

HRL
June 20, 2005



DAVID L. OMETZ
PRIMARY EXAMINER